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MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
2200 CLARENDON BLVD.
SUITE 1400
ARLINGTON, VA 22201

EXAMINER
AUGHENBAUGH, WALTER

ART UNIT	PAPER NUMBER
1772	7

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/762,677	Applicant(s) COURT ET AL.
	Examiner Walter B Aughenbaugh	Art Unit 1772

MF7

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

There are two many words in the abstract. Please also note the proper language requirements.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

In regard to claim 1, the word "so-called" is indefinite and extraneous. Please omit.

In regard to claims 1-20, please replace "characterized in that" with a word such as "wherein" so the language conforms with U.S. practice.

In regard to claims 1-5, "having" is a broad term. It is unclear whether "having" is intended to denote an open-type or closed-type transitional phrase. Please replace "having" with an open-type transitional phrase indicator such as "comprising" if the claim is indeed intended to be of the open type, or otherwise adjust the language so that the metes and bounds of the claimed invention can be ascertained.

In regard to claims 1 and 9, the word "semicrystalline" is indefinite since the word "semicrystalline" is not defined by the claim and the specification does not provide a standard for ascertaining the metes and bounds set forth by the word "semicrystalline".

In regard to claims 2-5, the phrases "it is a ___layer" in the first line of each of the claims are incomplete. The word "tube" must be inserted after each of these phrases so that the metes and bounds of the claim may be ascertained.

The word "possibly" in claims 6, 7 and 9 render the claim indefinite since the metes and bounds of the claim cannot be ascertained.

In regard to claim 8, there appears to be a typographical error in the listing of the units of surface resistivity. Please correct.

In regard to claim 9, A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 9 recites the broad recitation "at least 50%", and the claim also recites "preferably from 70 to 97%" which is the narrower statement of the range/limitation. Claim 9 recites the broad recitation "greater than or equal to 20,000g/mol", and the claim also recites "preferably between 50,000 and 200,000g/mol" which is the narrower statement of the range/limitation. Three more broader range/narrower range pairs are given in lines 15-17 of page 22 in claim 9. The word "preferably" is indefinite.

In regard to claim 10, it is unclear if the fluroresin is intended to be chosen from only one of the three categories or if a combination of fluororesins from different categories may be used. Therefore, the scope of the claim cannot be ascertained.

In regard to claim 13, the word "especially" is indefinite.

In regard to claim 15, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Examiner interprets the term "ABC triblock copolymer" as referring to any polymer that consists of three types of monomer blocks- i.e. any polymer consisting of a block or blocks of a monomer A, a block or blocks of a monomer B and a block or blocks of a monomer C.

7. Claims 1, 2, 8-11, 13, 15, 16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witschard in view of Rober et al.

Witschard teaches a polymer blend comprising a polyvinyl halide resin and a methacrylate polymer (col. 3, lines 54-68). Vinyl fluorides, such as vinylidene fluoride, are listed among suitable vinyl halide homopolymers and copolymers (col. 4, lines 39-57). The

methacrylate polymer is a methyl methacrylate-butadiene-styrene copolymer (col. 7, lines 6-26) corresponding to an ABC copolymer. Witschard teaches that the methacrylate polymer is compatible with the fluoropolymer, while a styrene-butadiene block copolymer is not compatible with the fluoropolymer (col. 13, lines 41-52; col. 15, lines 19-59; Table I) as indicated by the degree of transparency of blends of the methacrylate polymer or the styrene-butadiene block copolymer with the fluoropolymer. Witschard fails to teach a tube with an inner layer comprising the blend. Rober et al., however, teach a multilayer pipe with good barrier action towards methanol-containing fuels having a layer containing a mixture of polyvinylidine fluoride and acrylate copolymer and a polyamide layer (col. 1, lines 45-66). The two layers are adhered to one another (col. 1, line 66). One of ordinary skill in the art would have recognized to use the vinylidene fluoride, acrylate-containing polymer blend of Witschard as the material of the inner layer of a tube and to adhere a polyamide layer to the inner polyvinylidene fluoride blend layer in order to impart good fuel barrier properties to the tube as taught by Rober et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the vinylidene fluoride, acrylate-containing polymer blend of Witschard as the material of the inner layer of a tube in order to impart good fuel barrier properties to the tube as taught by Rober et al.

Witschard also fails to teach explicitly that the three blocks of comonomers are linked together in the order A, B, C, where the A block is linked to the B block and the B block is linked to the C block. However, one of ordinary skill in the art would recognize that the polymerization of methyl methacrylate in the presence of a polybutadiene-styrene polymer as taught by Witschard (col. 7, line 12-20) would result in poly(methyl methacrylate) chains grafted

onto the butadiene and/or styrene blocks. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have fabricated the methacrylate polymer of Witschard so that the A (-acrylate) blocks are linked to the B blocks and the B blocks are linked to the C blocks.

In regard to claim 8, Witschard fails to teach that the inner layer contains a dispersed electrically conductive carbon black filler. Rober et al. teach additional layers with the same composition as the polyamide and/or fluoropolymer blend that are made electrically conductive with a surface resistance of less than $10^9\Omega$ by addition of conductivity black, carbon fibers, metal powders, or the like (col. 5, lines 1-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added carbon black to the inner layer of Witschard and Rober et al. in order to provide a surface resistance of less than $10^9\Omega$ as taught by Rober et al.

In regard to claim 9, Witschard teaches that the vinyl halide polymer is present in a 50-99 weight percent of the blend, and that the methacrylate polymer is present in a 1-50 percent of the blend (col. 3, lines 60-68). Witschard and Rober et al. do not teach a molecular weight range for the copolymer or the relative amounts of A, B and C monomers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have prepared the copolymer to the greater than 20,000 g/mol limitation and to the claimed relative amounts of monomers, since it has been held that discovering an optimium value of a result effective variable involves only routine skill in the art in absence of unexpected results. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Witschard in view of Rober et al. and in further view of Lorek.

Witschard and Rober et al. teach the tube as discussed above. Witschard and Rober et al. fail to teach that a functional acrylic compound is added to the blend of the inner layer of the tube. Lorek, however, teaches an adhesion binder for polyvinlidene fluoride which comprises polymer A, which is, for example, a derivative of poly(methyl methacylate) (col. 2, lines 11-14) for a tube with an outer polyamide layer and an inner fluorinated polymer layer (col. 3, lines 20-24). The moieties in polymer A shown in col. 1 are functional acrylic compounds, as shown by the -(carbonyl carbon)-carbon-carbon- sequence in each moiety. Lorek further teaches that for fuel pipes, the binder based on polymer A is preferably mixed with fluorinated polymer in order to make it less rigid (col. 4, lines 30-34). Therefore, one of ordinary skill in the art would have recognized to include the binder based on polymer A in the fluoropolymer-copolymer blend inner layer of Witschard and Rober et al. in order to make the binder layer less rigid as taught by Lorek and to improve the adhesion between the polyamide and the fluoropolymer-copolymer blend layers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the binder based on polymer A in the fluoropolymer-copolymer blend inner layer of Witschard and Rober et al. in order to make the binder layer less rigid as taught by Lorek and to improve the adhesion between the polyamide and the fluoropolymer-copolymer blend layers.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Witschard in view of Rober et al. and in further view of Lorek.

Witschard and Rober et al. teach the tube as discussed above. Witschard and Rober et al. fail to teach that the tube is a trilayer tube with an adhesion binder between the polyamide and the fluoropolymer-copolymer blend layers. Lorek, however, teaches a three layer tube with a layer of polyvinylidene fluoride, a layer of the binder as discussed above in the rejection of claim 3 and a layer of polymer which is incompatible with the fluorinated polymer (col. 2, lines 61-66) such as polyamide (col. 3, lines 20-24). Lorek teaches that fuel pipes manufactured according to the invention with an inner layer of fluorinated polymer bonded by the adhesion binder to an outer layer of polyamide have exceptional resistance to permeation of alcohols, alcohol-containing fuels and to heat (col. 4, lines 10-17 and 50-52). One of ordinary skill in the art would have therefore recognized to place a binder layer between the polyamide and the fluoropolymer-copolymer blend layers of Witschard and Rober et al. in order to provide a fuel pipe with exceptional resistance to alcohols, alcohol-containing fuels and to heat as taught by Lorek and to provide excellent adhesion between the polyamide and the fluoropolymer-copolymer blend layers.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed a binder layer between the polyamide and the fluoropolymer-copolymer blend layers of Witschard and Rober et al. in order to provide a fuel pipe with exceptional resistance to alcohols, alcohol-containing fuels and to heat as taught by Lorek and to provide excellent adhesion between the polyamide and the fluoropolymer-copolymer blend layers.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Witschard in view of Rober et al. and in further view of Lorek.

Witschard and Rober et al. teach the tube as discussed above. Witschard and Rober et al. fail to teach that a succession of intermediate layers are placed between the inner layer and the polyamide layers. Lorek, however, teaches a five-layer pipe formed from a central layer of fluorinated polymer with layers of binder on both sides and layers of polyamide adjacent to both binder layers, in the order of "polyamide/binder/fluorinated polymer/binder/polyamide" (col. 4, lines 18-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to rearrange the central fluorinated polymer layer with an outer polyamide layer in the 5-layer structure taught by Lorek, since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

11. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witschard in view of Rober et al. and in further view of Bayard et al.

Examiner reminds the applicant that the method of forming the tube (and therefore the compositions of the components of the tube) is not germane to the issue of patentability of the tube (and therefore the compositions of the components of the tube) itself.

Witschard and Rober et al. teach the tube as discussed above. Witschard and Rober et al. fail to teach that the ABC triblock copolymer contains BC diblock copolymer and C homopolymer (in the case of claim 6) or AB diblock copolymer and A homopolymer (in the case of claim 7). However, Bayard et al. teach an initiation system for the anionic polymerization of acrylic monomers and for the preparation of diblock and triblock acrylic copolymers (col. 1, lines 12-19). The triblock polymers may be of the ABC type and the blocks are chosen from acrylic, methacrylic and nonacrylic vinyl monomer blocks (col. 6, lines 6-10). Examples of nonacrylic vinyl monomers that may be joined with acrylic blocks are butadiene, isoprene and

vinylaromatic monomers (such as styrene) (col. 4, lines 1-4). Bayard et al. note that no residual homopolymer is observed in the example preparation of a methyl methacrylate-butyl acrylate diblock copolymer (col. 17, lines 36-41). Bayard et al. disclose that 20% methyl methacrylate homopolymer is generally obtained with other initiation systems (col. 17, lines 36-41). Thus, the possibility of a yield of homopolymer when preparing diblocks copolymers is clearly disclosed. One of ordinary skill in the art would further recognize that diblock copolymers are sometimes attained in preparation of triblock polymers. Bayard et al. disclose that a methyl methacrylate-butyl acrylate-methyl methacrylate triblock copolymer is obtained in an 80% yield (col. 19, lines 11-13). One of ordinary skill in the art would recognize that diblock copolymers and homopolymers make up the residual 20%. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the ABC triblock copolymer contains BC diblock copolymer and C homopolymer (in the case of claim 6) or AB diblock copolymer and A homopolymer (in the case of claim 7), depending on the polymerization conditions.

12. Claim 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witschard in view of Rober et al. and in further view of Tsutsumi et al.

Witschard and Rober et al. teach the tube as discussed above.

In regard to claim 12, Witschard and Rober et al. fail to teach that the B block has a glass transition temperature ranging from -100°C to -50°C. Tsutsumi et al., however, teach a butadiene-based rubber composition containing a butadiene-based homopolymer or copolymer having a glass transition temperature between -105°C and -70°C (claim 1). Tsutsumi et al. disclose that if the glass transition temperature is less than -105°C, processability is poor, while

more than –70°C is also unfavorable since the wear resistance of the resulting rubber is lower. Therefore, one of ordinary skill in the art would have recognized to polymerize the B block under appropriate conditions so as to obtain a B block with a glass transition temperature ranging from -100°C to -50°C in order to maintain good processability and mechanical properties of the B block as taught by Tsutsumi et al.

In regard to claim 14, Witschard and Rober et al. fail to teach that the C block has a glass transition temperature greater than that of the B block. Tsutsumi et al., however, teach the copolymerization of different amounts of styrene with different amounts of butadiene (col. 6, lines 38-54 and table 1a). Table 1a clearly shows that the glass transition temperature (T_g) of the copolymer increases with an increase in styrene content. For example, the T_g of copolymer A with a 3% block polystyrene content and a 17% vinyl bond content is -92°C, while the T_g of copolymer I with a 7% block polystyrene content and a 16% vinyl bond content is -60°C. One of ordinary skill in the art would have recognized that this increase in T_g of the copolymer with an increase in styrene content indicates that styrene (the C block in the instant application) has a greater T_g than butadiene (the B block in the instant application).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a C block with a T_g that is greater than that of the diene B block in order to increase the T_g of the copolymer so that it is greater than the T_g of the diene alone so that the processability of the copolymer is improved.

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Witschard in view of Rober et al. and in further view of Drzewinski.

Witschard and Rober et al. teach the tube as discussed above. Witschard and Rober et al. fail to teach that the poly(methyl methacrylate) (PMMA) is syndiotactic and its glass transition temperature is from 120°C to 140°C. Drzewinski, however, teach that syndiotactic PMMA blended with polycarbonate assures compatibility and miscibility between the components throughout the whole range of compositions (col. 2, lines 47-51). Drzewinski further disclose that syndiotactic PMMA with a glass transition temperature of 132°C was blended with polycarbonate. One of ordinary skill in the art would have recognized to have used syndiotactic PMMA with a glass transition temperature from 120°C to 140°C in order to assure that the PMMA portion of the copolymer of Witschard and Rober et al. is miscible with the polymer it is blended with as taught by Drzewinski.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used syndiotactic PMMA with a glass transition temperature from 120°C to 140°C in order to assure that the PMMA portion of the copolymer of Witschard and Rober et al. is miscible with the polymer it is blended with as taught by Drzewinski.

14. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witschard in view of Rober et al. and in further view of Lorek.

Witschard and Rober et al. teach the tube as discussed above. Witschard and Rober et al. fail to teach a four layer tube with the following layers in the specified order: polyamide/binder/fluoropolymer/(fluoropolymer blended with copolymer and carbon black) in the case of claim 19 or polyamide/binder/fluoropolymer blended with copolymer/(fluoropolymer blended with copolymer and carbon black) in the case of claim 20. However, Lorek teaches a five-layer pipe formed from a central layer of fluorinated polymer with layers of binder on both

sides and layers of polyamide adjacent to both binder layers, in the order of "polyamide/binder/fluorinated polymer/binder/polyamide" (col. 4, lines 18-23) as discussed above. Since the binder is preferably mixed with fluorinated polymer in order to render the binder layers less rigid (col. 4, lines 30-34), the four-layer structure claimed by the applicant exists in this five layer structure along with a second polyamide layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have omitted one of the polyamide layers in the five-layer structure of Lorek, since it has been held that omission of an element and its function in a combination where the remaining elements perform the same functions as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184. Omission of one of the polyamide layers does not affect the function of the tube since the three layer structure of Lorek of an inner layer of fluorinated polymer bonded by the adhesion binder layer to an outer layer of polyamide (col. 4, lines 10-15) exists in the four-layer structure. This three-layer structure decreases the permeability by a factor of 10 relative to that of an equivalent pipe made of only polyamide (col. 4, lines 12-15). Therefore, omission of a polyamide layer, which has inferior permeability resistance compared with the three-layer structure, from the five-layer structure does not affect the permeation properties of the resultant four-layer structure.

In regard to the carbon black limitation, as discussed in the rejection of claim 8, Rober et al. teach that electrically conductive additives may be added to polyamide and/or the polyvinylidene fluoride blend layers (col. 5, lines 1-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added carbon black to the fluoropolymer/copolymer blend of Witschard and Rober et al. in order to make the layer/s electrically conductive as taught by Rober et al.

In regard to claim 20, Lorek teaches that when the binder based on polymer A contains a fluorinated polymer, it is preferable that the fluorinated polymer present in the binder is the same as that which is found in the adjacent layer of the fluorinated polymer (col. 4, lines 34-20). Therefore, one of ordinary skill in the art would have recognized to use the same fluoropolymer/copolymer blend in the flourinated layer of Lorek as is used in the fluorinated binder layers as taught by Lorek.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B Aughenbaugh whose telephone number is 703-305-4511. The examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 703-308-4251. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

wba
06/14/02

HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

6/14/02